JVC

SERVICE MANUAL

COLOUR TELEVISION

BASIC CHASSIS
CG

AV-14F7 (VT)

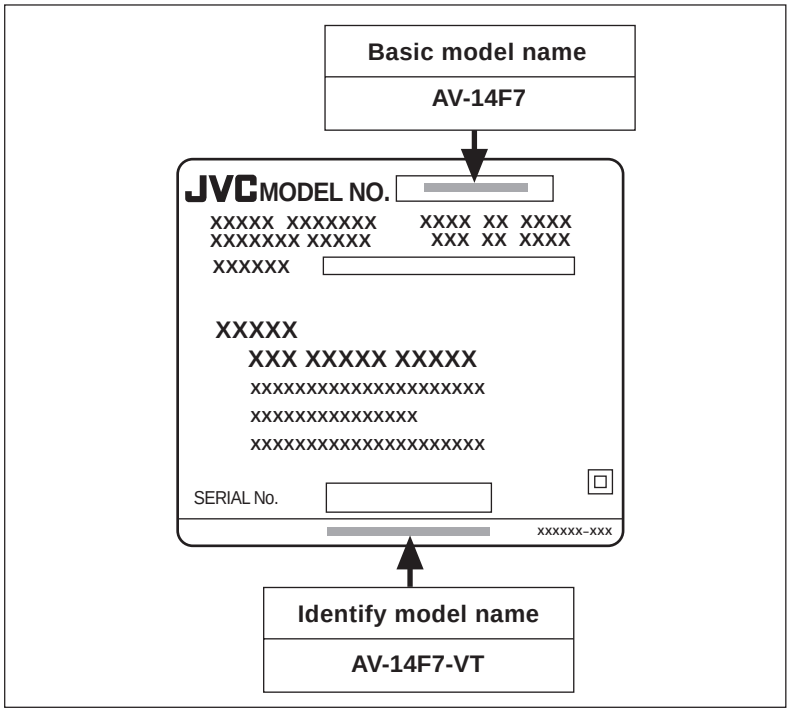
This service manual mainly consists of the following items:
- **The items which differ from those for the AV-14FM service manual.**
- **The initial value for each setting item.**

For details other than those described in this manual, please refer to the following service manual.
Reference Service Manual: AV-14FM Service Manual (No. 51753, Jul. 2000)

Note: The page in parentheses shows the one for the AV-14FM service manual (No. 51753, Jul. 2000).

HOW TO IDENTIFY MODEL

While referring to the illustration given below, identify model name on the rating label affixed to the rear cover.



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PARTS DIFFERENCE TABLE

The different parts between AV-14FM and AV-14F7(VT) are described below:

⚠	REF. NO.	AV-14FM PART No.	AV-14F7(VT) PART No.	PART NAME	DESCRIPTION
■ **EXPLODED VIEW PARTS LIST (Page 32)**					
⚠	V01	A34AGT15X	———	PICTURE TUBE	
		———	**A34JLL91X84**	PICTURE TUBE ITC	
⚠	L01	QQW0093-001	**CELD025-005J6**	DEGAUSSING COIL	
	DY01	QQD0046-001	———	DEF YOKE	
	1	LC10831-002B-H	**LC10831-011B-H**	FRONT CABINET	
	10	CE42153-00AJ1	———	WEDGE ASSY	(×3)
	11	CE40305-00B	———	PC MAGNET	
⚠	16	CM12961-D01-VH	**CM12961-D01-KH**	REAR COVER	
⚠	19	LC20377-001B-H	**GG20001-010A-H**	RATING LABEL	
■ **PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] (Page 34-)**					
	—	SCG-1017A-H2	**SCG-1249A-CK**	MAIN PWB ASSY	
	R1103	NRSA63J-100X	———	CH MG R	10Ω 1/16W J
		———	**NRSA02J-820X**	CH MG R	82Ω 1/10W J
	R1112	NRSA63J-100X	———	CH MG R	10Ω 1/16W J
		———	**NRSA02J-220X**	CH MG R	22Ω 1/10W J
	R1303	NRSA63J-101X	———	CH MG R	100Ω 1/16W J
		———	**NRSA02J-221X**	CH MG R	220Ω 1/10W J
	R1304	NRSA63J-101X	———	CH MG R	100Ω 1/16W J
		———	**NRSA02J-221X**	CH MG R	220Ω 1/10W J
	R1305	NRSA63J-101X	———	CH MG R	100Ω 1/16W J
		———	**NRSA02J-221X**	CH MG R	220Ω 1/10W J
	R1347	———	**NRSA02J-392X**	CH MG R	3.9kΩ 1/10W J
	R1348	———	**NRSA02J-472X**	CH MG R	4.7kΩ 1/10W J
	R1369	———	**QRE122J-394**	C R	390kΩ 1/2W J
	R1528	———	**QRE122J-471**	C R	470Ω 1/2W J
	R1529	QRL039J-121	———	OM R	120Ω 3W J
		———	**QRG029J-271**	OM R	270Ω 2W J
	C1317	NCB31EK-473X	———	CH C CAP.	0.047µF 25V K
		———	**NCB21HK-473X**	CH C CAP.	0.047µF 50V K
	C1351	QCZ0121-102	———	C CAP.	1000pF 3kV Z
	C1352	———	**QFZ0097-103**	MM CAP.	0.01µF 1250V K
	C1354	NDC31HJ-271X	———	CH C CAP.	270pF 50V J
		———	**NDC21HJ-221X**	CH C CAP.	220pF 50V J
	C1355	NDC31HJ-221X	———	CH C CAP.	220pF 50V J
		———	**NDC21HJ-271X**	CH C CAP.	270pF 50V J

⚠	REF. NO.	AV-14FM PART No.	AV-14F7(VT) PART No.	PART NAME	DESCRIPTION
■ **PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] - Continued (Page 34-)**					
	C1527	QFZ0199-224	———	MPP CAP.	0.22µF 250V J
		———	**QFZ0199-184**	MPP CAP.	0.18µF 250V J
	C1530	———	**QCB32HK-561**	C CAP.	560pF 500V K
	C1582	QFZ0199-204	———	MPP CAP.	0.2µF 250V J
		———	**QFZ0199-184**	MPP CAP.	0.18µF 250V J
	C1657	———	**QCB31HK-103**	C CAP.	0.01µF 50V K
	L1522	———	**QQR1005-003**	LINEARITY COIL	
	L1551	QQLZ026-640	**QQLZ018-670**	HEATER CHOKE	
	IC1701	MN1873287JB1	**MN1873287JD1**	IC (MICROCOMPUTER)	
	IC1702	AT24C08-21PM	**AT24C08-14F7VT**	IC (MEMORY)	(Service)
	J1006	———	**QNN0281-002**	PIN JACK	
	TU1001	QAU0202-001	**QAU0186-001**	TUNER	
■ **PACKING PARTS LIST (Page 38)**					
	1	LC10453-092A-H	**GG10007-010A**	PACKING CASE	
	4	RM-C364-1H	**RM-C367-1H**	REMOCON UNIT	
⚠	6	LCT0733-001A-H	**LCT0768-001A**	INST BOOK	
⚠	7	LCT0734-001A-H	———	DIGEST MANUAL	
	8	CM47385-00B-H	**CM43936-001**	POS/SERIAL LABEL	(×2)
	—	———	**CEAB005-00AJ1**	MATCHING BOX	

SPECIFICATIONS (Page 2)

Item		Content
Dimensions (W × H × D)		462mm × 340.5mm × 375mm
Mass		10kg
TV RF System		B / G, I, D / K, K1, M
Colour System	TV Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
	VIDEO Mode	PAL / SECAM / NTSC3.58 / NTSC4.43
Receiving Frequency	VHF (VL)	46.25MHz ~ 168.25MHz
	VHF (VH)	175.25MHz ~ 463.25MHz
	UHF	471.25MHz ~ 863.25MHz
	CATV	● Cable TVs of Mid (X-Z, S1-S10) Super (S11-S20) & Hyper (S21-S41) bands receivable
Intermediate Frequency	VIF Carrier	38.0MHz
	SIF Carrier	31.5MHz (6.5MHz) 32.0MHz (6.0MHz) 32.5MHz (5.5MHz) 33.5MHz (4.5MHz)
Colour Sub Carrier Frequency		PAL (4.43MHz) SECAM (4.40625MHz / 4.25MHz) NTSC (3.58MHz / 4.43MHz)
Aerial Input Terminal		75Ω Unbalanced
Power Input		Rating: AC110 ~ 240V, 50/60Hz Operating: AC90 ~ 260V, 50/60Hz
Power Consumption		70W (Max.) / 47W (Avg.)
Picture Tube		Visible size : 34cm measured diagonally
High Voltage		22.5kV ± 1.5kV (at zero beam current)
Speaker		5cm × 9cm Oval type × 2
Audio Output		3W (Monaural)
Input	Video	1Vp-p, 75Ω
	Audio	500mVrms (–4dBs), High impedance
Output	Video	1Vp-p, 75Ω
	Audio	500mVrms (–4dBs), Low impedance
Headphone Jack		Stereo mini jack (3.5ø)
Remote Control Unit		RM-C367-1H (Battery size : AA/R06/UM-3 × 2)

Design & specifications are subject to change without notice.

SPECIFIC SERVICE INSTRUCTIONS

SETTING OF SYSTEM CONSTANT SET (Page 9)

Table 1

Setting item	Setting contents	Setting value
COLOUR	MULTI. → TRIPLE → PAL	MULTI.
BILINGUAL	YES → NO	NO
TUNER	MU → MA	MU
ECO SENSOR	YES → NO	YES
LANGUAGE	E/V → E	E/V
B/B SOUND	ON → OFF	OFF
LOCK	YES ↔ 10 ↔ 20 ↔ ... ↔ 230 ↔ 240 ↔ 250	180
COLOUR AUTO	YES → NO	NO
QSS	MINT → MQSS	MINT
ALC	YES → NO	NO
TEXT RATE	10 ↔ 20 ↔ 40 ↔ 80	20
AMP TUNER	YES → NO	YES
VNR	YES → NO	NO

USER SETTING VALUES (Page 9)

Table 2

Setting item	Setting value	Setting item	Setting value
SUB POWER	ON	PICTURE MODE (VSM)	BRIGHT
CHANNEL POSITION	1 POSITION	OFF TIMER	OFF
CHANNEL PRESET	Refer to OPERATING INSTRUCTION	LANGUAGE	VIETNAMESE
		AUTO SHUTOFF	OFF
VOLUME	Appropriate sound volume	ECO SENSOR	OFF
TV/VIDEO	TV	BLUE BACK	OFF
ON SCREEN DISPLAY	POSITION NUMBER DISPLAY	ON TIMER	PR1 0:00
COLOUR SYSTEM	AUTO PAL	CHILD LOCK	OFF
SOUND SYSTEM	B / G	PICTURE BOOSTER	OFF

SERVICE ADJUSTMENTS

■ Initial Setting Value

■ IF CIRCUIT ADJUSTMENT -- Adjustment of DELAY POINT (Page 17)

Setting (Adjustment) Item		Variable range	Initial setting value
DELAY POINT (AGC TAKE-OVER)	NTSC3.58	0 ~ 127	48
	Others		43

■ V/C (VIDEO/CHROMA) CIRCUIT ADJUSTMENT (Page 17)

[SUB MENU 2. V/C]

Setting item \ Colour system		Variable range	Initial setting value			
			PAL	SECAM	NTSC 3.58	NTSC 4.43
1. CUT OFF (R / G / B)		–128 ~ +127	–50	←	←	←
2. DRIVE (R / B)		–64 ~ +63	0	←	←	←
3. BRIGHT		–128 ~ +127	0	←	←	←
4. CONT.		–64 ~ +63	0	←	←	←
5. COLOUR (P / S / N3 / N4)		–64 ~ +63	0	←	←	←
6. TINT (N3 / N4)	TV / VIDEO	–64 ~ +63	———	———	0 / +8	0 / 0
7. SECAM BL ADJUST		–32 ~ +31	0	←	←	←
8. SHARP	TV / VIDEO	–32 ~ +31	–15 / +5	←	←	←
9. AMP T. SHARP		–16 ~ +15	0	←	←	←

: **Do not adjust.**

Adjustment of SUB COLOUR-II (Page 20)

Adjustment part	Description
5. COLOUR	
PAL COLOUR	Value **(A)** in the figure: Set to **+9V (W & G)**.
SECAM COLOUR	Value **(A)** in the figure: Set to **+3V (W & G)**.
NTSC 3.58 COLOUR	Value **(A)** in the figure: Set to **+7V (W & G)**.

Adjustment of SUB TINT-II (Page 21)

Adjustment part	Description
6. TINT	
NTSC 3.58 TINT	Value **(B)** in the figure: Set to **+5V (W & Cy).**

■ DEFLECTION CIRCUIT ADJUSTMENT (Page 23)

[SUB MENU 3. DEF]

Setting item	Adjustment name	Variable range	Initial setting value	
			50Hz	60Hz
1. VER. POSITION	Vertical center	–4 ~ +3	–2	–3
2. HOR. POSITION	Horizontal center	–16 ~ +15	+1	+4
3. VER. HEIGHT	Vertical height	–64 ~ +63	–40	0
4. VER. LINEARITY	Vertical linearity	–32 ~ +31	+13	–3
5. VER. SCURVE	Vertical scurve	–32 ~ +31	–32	0
6. HOR. VCO ADJUST	Horizontal VCO	–64 ~ +63	0	0

: Do not adjust.

■ VSM PRESET ADJUSTMENT (Page 25)

[Setting Values for SUB MENU 4. VSM PRESET]

VSM preset mode / VSM Setting item	BRIGHT	STANDARD	SOFT
TINT SETTING VALUE	+15	←	←
COLOUR SETTING VALUE	+15	←	←
BRIGHT SETTING VALUE	+15	←	←
CONT. SETTING VALUE	+30	+15	+11
SHARP SETTING VALUE	+15	+15	+12

: Do not adjust.

■ PRESET ADJUSTMENT (Page 26)

[SUB MENU 5. PRESET]

Setting item \ Colour system		Initial setting value			
		PAL	SECAM	NTSC 3.58	NTSC 4.43
1. C-TRAP FIX		1	←	←	←
2. SHARP PEAK		0	←	———	———
3. ABL		1	←	———	———
4. GAMMA		0	←	←	←
5. Y.DELAY TIME	TV	0	2	2	3
	VIDEO	0	2	0	2
6. BLACK EXP START		3	←	←	←
7. C-BPF	TV	1	←	0	←
	VIDEO	1	←	←	←
8. CW/SCP		0	←	←	←
9. V.IF DET. LEVEL		0	←	←	←
11. IF AGC MIN.		0	←	←	←
12. V.IF AGC		0	←	←	←
13. V.IF PMOD		0	←	←	←
19. VNR		15	←	←	←
20. RGB LIM.		1	←	←	←
21. RGB LIMIT LEVEL		2	←	←	←
23. TEXT H. POSITION		–3	←	←	←
24. READ DATA		———	———	———	———

: Do not adjust.

Setting item \ TV RF system	Initial setting value			
	B/G	I	D/K	M
10. S.IF DET. LEVEL	0	←	←	←
14. S.IF BPF BW ADJUST	0	←	←	←
15. S.IF TRAP FO ADJUST	0	←	←	←
16. S.IF TRAP FO ADJUST 2	0	←	←	←
17. S.IF-TRAP	0	←	←	←
18. S.IF-BPF	0	←	←	1
22. S.IF SW	1	←	←	0

: Do not adjust.

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